

lubricated to a greater extent. The same process may be witnessed in the Ducks and in many other birds. As I have stated before, the coccygeal muscles, I believe, greatly assist in propelling the oleaginous fluid from the ducts. The secretion, judging from the vascularity of the glands and from experiments I have made, is very abundant. During last summer, for the purpose of ascertaining the daily amount of secretion, I confined a duck and a hen in a coop, and for some time every day I squeezed the glands and expressed a large quantity of thick yellow oil, the operation apparently tending to increase the quantity of the secreted fluid.

I infer then that, looking especially to the structure of these glands, the character and quantity of their secretion, their relative size in the Palmipedes especially, they serve for the purpose usually assigned to them, viz. that of supplying an oily fluid for lubricating the skin and feathers.

I have not had time to speak of the morbid states of these glands; but those organs are not unfrequently enlarged in domesticated birds, and the character of the secretion sometimes is much altered. On the table are the tail-glands of the Common Goose, an old bird, in which it will be seen that the cavities are filled with a hard waxy material.

I hope at a future time to bring this matter before the Society, and to compare the structure of these glands with that of the anal glands of the *Viverride*.

May 22nd, 1860.

Dr. J. E. Gray, V.P., in the Chair.

Mr. Sclater exhibited a specimen of a new form of Dormouse (*Platacanthomys lasiurus*), lately described by Mr. Blyth* from the Malabar Coast, and presented to him by the describer.

The following papers were read:—

1. NOTES ON A THIRD COLLECTION OF MAMMALIA MADE BY MR. FRASER IN THE REPUBLIC OF ECUADOR. BY ROBERT F. TOMES.

1. ARCTIBEUS PERSPICILLATUS, Geoff. sp.

2. ARCTIBEUS PUSILLUS, Natt. sp.

Phyllostoma pusillum, Natt. Wagn. Weigm. Archiv. 1843, i. 366; Tschud. Faun. Peru. i. 63; Wagn. Supp. Schreb. v. p. 634. pl. 43.

Several specimens of this species appear in the collection, and were,

* Journ. As. Soc. Beng. vol. xxviii. p. 289.

I believe, collected on the coast of Ecuador, but no indication of their exact locality accompanies them. They are probably the first specimens received in this country, and accord accurately with the figure given by M. Wagner in the fifth volume of his Supplement to Schreiber's work on 'Mammalia.'

3. NOCTILIO LEPORINUS, Linn. sp.

Of this species Mr. Fraser has forwarded several specimens, one of which has the following highly interesting note attached:—
"Esmeraldas, Nov. 1859; skimming the bank of the river, every now and then making a dash along, and actually striking the water, catching the minute shrimps as they pass up stream. He had a very offensive fishy smell."

This is the first recorded instance which I have met with of any species of *Chiroptera* being actually aquatic in its habits. From the great resemblance which exists between the fur of the New Zealand *Mystacina*, and that of the Water Shrews, and indeed that of other mammalia with similar aquatic habits, I had long ago been led to suspect that that Bat might be aquatic in its mode of life, but I could never gather direct evidence on the subject. Certainly I little suspected that this *Noctilio* took its food in the manner noticed by Mr. Fraser.

4. EMBALONURA CANINA, Pr. Max. sp.

Three specimens only have come to hand.

5. VESPERTILIO ALBESCENS, Geoff.

V. chiloënsis, Waterh.

The specimens which I refer to this species differ in a very trifling, though constant manner, from the specimens from which the descriptions of the *V. albescens* of M. Temminck and the *V. chiloënsis* of Mr. Waterhouse have been taken. These are identical, as I have recently ascertained by an examination of the originals.

The chief difference between them and Mr. Fraser's examples consists in the greater length and silkiness of the fur of the latter. At present I do not feel justified in describing them as of a new species.

6. FELIS — ?

Resembles in size and proportions (including the shortness of its tail) *Felis tigrina*; but its markings are very like those of *Felis macroura*. The following note by Mr. Fraser informs us that it is young, and this being the case renders its identification very difficult: "Killed on the banks of the Zamora River in January 1858. Young male."

7. TAPIRUS AMERICANUS, Gmel.

T. suillus, Wagn. Supp. Schreib. iv. 294.

A cranium which is obviously identical with several, labelled *Ta-pirus americanus*, in the British Museum.

8. *DICOTYLES TORQUATUS*, Cuv. Collared Peccary (?).

A skull, with the following note, has been received :—"Esmeraldas, Nov. 1859. *Tatabara*. This is a species of Collared Peccary (*D. torquatus*), having the collar, but is a very different colour in all other parts. It is more a solitary than gregarious animal; when hard pressed, retreats to its den, which is constructed beneath masses of dead vines. Feeds on palm-nuts, and grubs in the earth like a pig." Mr. Fraser then goes on to observe, that in consequence of a strange idea of the natives, that if seasoning were added to the meat, or the latter boiled in a pot with a lid to it, their dogs would become for evermore useless for the hunt, they refused to allow him any part of one of these animals, excepting the skull, after they had done with it.

Mr. Waterton, speaking of the Peccary of Demerara, says, "Three or four hundred of them herd together, and traverse the wilds in all directions in quest of roots and fallen seeds." Mr. Fraser's note would seem to refer to quite a different animal from this.

9. *DICOTYLES ALBIROSTRIS*, Ill. (?) "White-lipped Peccary."
—Fraser, MS. Notes.

D. labiatus, Schomb. Ann. Nat. Hist. v. 402.

Of this species, obviously distinct from the last, a skull and accompanying note are the only indications. Mr. Fraser says, "White-lipped Peccary; Xivarro name *Und-paqui*,—*und* meaning 'great,' and *paqui* the name of the Collared Peccary, which is found in Gualaquiza."

10. *TAMANDUA TETRADACTYLA*, Linn. sp.

Myrmecophaga tetradactyla, Linn. Syst. Nat. xii.

Tamandua tetradactyla, Less.

Myrmecophaga bivittata, Geoff.

The note which accompanies this beautiful specimen is as follows :—"Esmeraldas, Nov. 1859. *Aso mileró*. Said to subsist on ants, bees, their honey, and other insects, and to live among the branches of trees,—not on the ground. It is eaten by these people, who are a very distinct race from any I have seen elsewhere."

11. *HESPEROMYS MACULIPES*, Pictet ?

I am not able to determine this species with certainty, and prefer to leave it undecided for the present, merely noting that it is closely related to the *H. maculipes* of M. Pictet, but nevertheless differs sufficiently from it to excite a suspicion that it may prove to be of a distinct species.

12. *HESPEROMYS ARVICOLOIDES*, Pictet.

Although M. Pictet has himself referred this species to the *H. renggeri* of Mr. Waterhouse, I find M. Wagner subsequently giving

the two as distinct; and after the examination of a large number of specimens undoubtedly referable to *H. rengeeri*, and comparison of these with M. Pictet's figure and description, I have arrived at the same conclusion. The species now under notice may be seen in collections with the name of *H. arvicoloides* attached; and, as it accords well with the figure and description of that species (and is certainly distinct from *H. rengeeri*), I shall for the present adopt that name.

13. HESPEROMYS CALIGINOSUS, n. s.

The present remarkable looking species takes its place under the division of the genus which I have in my former 'Notes' proposed for the reception of two new species forwarded by Mr. Fraser, and which I have called *H. latimanus* and *H. bicolor*. Agreeing with these species in the more essential points of structure, it yet differs from them in the shortness of the tail, and in the kind of fur.

Head and face short, much as in the *Arvicolidæ*; eyes small and concealed in the fur; muffle very small, and without prominences beneath the nostrils; ears small, ovoid, and naked. Fore feet short and moderately broad, with the toes naked, and the claws short and rather stout; hind feet short and moderately broad, with the claws rather strong, and the toes nearly naked on their upper surface, the tarsus even being only sparingly sprinkled with short hairs. Tail about as long as the body, exclusive of the head, sparingly clothed with very short and stout hairs. All the naked parts nearly black, claws pale brown. Whiskers few and short.

The general colour of the fur may be described as black, thickly powdered with darkish chestnut, with a greater mixture of the latter colour beneath than above; on the abdomen slightly tinged with greyish. Each hair is blackish grey at the root, and tipped with chestnut; but there is an unusual number of rather longer black hairs mixed with these, which gives the species the appearance of black, finely dotted with rufous.

The skull of this species has the same conformation as those of *H. latimanus* and *H. bicolor*.

Length of the head and body	5	0
— of the tail	3	0
— of the head	1	3
— of the ears, behind	0	5
— from nose to eye	0	6
— from nose to ear	1	0
— of fore foot and claws	0	6
— of hind foot and claws	1	0
Breadth of ear, nearly	0	5
— across the middle of the tarsus	0	2½
Diameter of the eye	0	1

These dimensions, having been taken from a specimen preserved in spirits, are pretty accurate.

14. *HESPEROMYS ALBIGULARIS*, n. s.

Of this well-marked and apparently new species the collection contains two specimens, and one being adult, whilst the other is not more than half-grown, I should be able to give a tolerably good account, but that, both specimens being in skin, the dimensions are less likely to be exact.

The general form is very much like that of *H. longicaudatus*, and it pertains strictly to the same division of the genus (*Calomys*), but is a much larger species, and is differently coloured. The head is moderately elongated, and the snout somewhat pointed. Muffle with two very distinct prominences beneath the nostrils; ears small, roundish, and clothed with short hair externally, and internally near the margin. Fore feet of medium size and proportion, their claws short and rather weak, the thumb furnished with a small but well-developed claw of a rounded form; the upper surface of the toes almost naked. Hind feet long, of moderate breadth; the upper surface of the toes nearly naked, excepting at the root of the claws, which are hidden by a tuft of curved white hairs; upper surface of the tarsus also but very slightly hairy, its under surface quite naked; the claws of medium proportion, and nearly white. The tail, which is longer than the head and body, tapers evenly throughout, is naked, or nearly so, and annulated with very fine scales.

The fur is rather long, soft, and somewhat glossy; on all the upper parts it is dark dusky-grey at the root, tipped with yellowish-brown, and thickly mixed with shining black hairs, which are very numerous on the dorsal region. On the head the fur becomes darker, and yet more so towards the snout, so that from the eyes to the latter it is almost black. Cheeks and sides of the neck yellowish-brown, with a distinct line of division where it meets the darker colour of the head. The chin is ashy-grey. On the throat is a longitudinal well-defined space of pure white (the hairs being white from root to tip), which commences anteriorly very narrow, but, expanding as it passes backward, occupies the whole space between the fore legs, and passes gradually into the colour of the belly, where the fur has the tips only of a greyish-white, which is confined to the mesial line. The hair on the ears is black; a spot of yellowish-brown marks the root of the whiskers; the fur, which extends along the outer surface of the arm to the wrist, is dark grey, and that on the upper surface of the tarsus ashy-grey; the tail is dark grey above, pale brown beneath.

The clear line of separation of the dark colour of the head, from the paler colour of the cheeks, and the white wedge-shaped mark on the throat, equally distinct from the colour of the cheeks, will at once distinguish this species.

A young one half-grown resembles the adults, excepting that the fur is shorter, and the white mark on the throat less pure and not so well defined.

Length of the head and body, about	4	9
— of the tail	5	6
— of the ears	0	5½

Length from nose to eye	0	7
—— from nose to ear	1	1
—— of the fore foot	0	8
—— of the hind foot	1	3½

The conformation of the skull is in perfect accordance with the external characters, and resembles that of *H. longicaudatus* so exactly, excepting in size, that its dimensions are all that need here be given.

Total length from the front of the nasal bones to the occiput	1	3¼
Length from the front of the nasal bones to the anterior root of the zygoma	0	5½
—— of the nasal bones	0	5½
—— from the point of the upper incisor to anterior molar	0	4⅓
—— of the molar range	0	3
Breadth behind the posterior root of the zygoma	0	7
Length of the lower jaw from point of incisor to condyle	0	9½
Depth from the coronoid process, vertically	0	4
Length from point of incisor to anterior molar ..	0	3⅔

Mr. Fraser's note of the adult specimen is, "Taken *en camino* on my return from Pallatanga." Of the young one, it is added that "many dead ones were lying about, but too much eaten by insects to be of service." The date of both notes is Dec. 1858.

15. *MUS RATTUS*, Linn.

Several specimens of this widely distributed species are included in the present collection, and some of these have their extremities white, *i. e.* the tip of the tail, and part of the toes of all the feet. They do not differ essentially from specimens collected by Mr. Bridges in Chili, and others collected in Mexico by M. Sallé.

16. *LEPUS BRASILIENSIS*, Linn.

One specimen, which Mr. Fraser says is a female, and was with young when obtained, which was in March 1858.

17. *ECHIMYS SEMISPINOSUS*, n. s.

In my first notes on Mammals, collected by Mr. Fraser, I included the *Echimy*s *cayennensis*, from the examination of a specimen which had lost the tail, and was otherwise in an unsatisfactory condition. Other and better specimens of *Echimy*s having been received, I have been able to make out clearly that they represent a new and well-marked species, and that the former specimen was similar to them.

The general form of this species is robust, more so than either that of *E. cayennensis* or *E. hispidus*. The head is larger in relation to the size of the animal, the ears are much smaller, and the tail not above half the length of the head and body. The head is rather

broad, and the muzzle obtuse, and the muffle large; the ears small, and with their lobular part much less developed than in *E. cayennensis*, and their ends are more evenly rounded than in that species. The fore feet are strong, and have long and strong claws compared with those of other species. The claw which arms the inner toe or thumb is short and rounded. The hinder limbs are also rather long and strong, with strong claws. All the members are clothed with hair on their upper surfaces, but the fore feet rather scantily on the toes. The spines are confined to the middle of the back, being absent over the shoulders and on the rump, or at any rate so little developed over those parts as not to merit the name of spines. They are short and flexible, their expanded portion being short and near the root, from which they taper regularly, and end in a longish and very fine point, which is black, and resembles the black hairs on the backs of so many of the smaller rodents. The tail tapers evenly to a fine



Fig. 1.

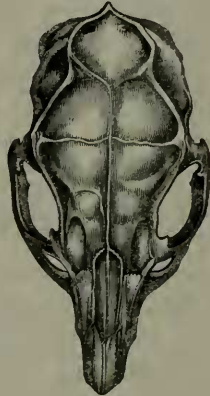


Fig. 2.

Fig. 3.



Fig. 4.



point; the fur of the rump extends on to its base for a space of half an inch, its remaining part being pretty evenly sprinkled with shortish hairs, which are not on any part thick enough to hide the

scales. There is no indication of a tuft at its extremity, as in *E. cayennensis*.

The general colour of the upper parts is very dark brown, being a mixture of reddish-brown and black, the latter predominating; the cheeks, sides of the neck, and sides of the body the same, but paler; around the eyes a narrow circle of black; fore- and hind-feet and under surface of the tail ashy-brown, those on the upper surface of the tail black. There is much less naked skin on the inside of the thighs and on the pubal region in this species than in *E. cayennensis*.

Besides its greater size, the skull of this species offers another peculiarity worthy of note, as may be seen by the drawings (woodcuts 1, 2, 3, 4), which represent the skulls of *E. cayennensis* and *E. semispinosus*. Taking for comparison, as before, the commoner species, *E. cayennensis* (figs. 1, 3), the nasal bones of its cranium are seen to extend backward barely as far as to the anterior root of the zygoma, and to retain their full breadth for the whole of their length, and the intermaxillary bones each to end in a point about one line posterior to this. In *E. semispinosus* (figs. 2, 4) these proportions are reversed: the nasal bones, extending farther back, become narrower, and end in a point on the frontal region, while the intermaxillary bones do not reach so far back as the zygoma, and terminate abruptly instead of being produced to a point. The orbit also in this species is of greater relative size, which is further increased by the backward position of the process of the superior margin of the zygoma.

Length of the head and body	9	0"
—— of the head	2	7
—— of the tail	5	6
—— of the ears behind	0	7½
Breadth of the ears, nearly	0	7
Length from nose to eye	1	0
—— from nose to ear	1	9½
—— of fore foot and claws	1	2
—— of the middle claw	0	2¾
—— of hind foot and claws	1	10
—— of the middle claw	0	3
—— of the fore arm	1	6
—— of the tibia	2	2
Total length of skull	2	2½
Breadth across the zygomatic arches	1	1½
Length from point of upper incisors to anterior molar	0	6½
—— of molar range	0	4½
—— of nasal bones	0	10½
—— of lower jaw from point of incisors to condyloid process	1	4½
Depth from the condyle vertically	0	7

Three specimens of this species have been received in spirits, all

of which were females; one of them contained two young. I do not find any evidence, excepting this, of the number of young produced at a birth; but if this be the usual number, it would account for the comparative scarcity of the species of *Echimy*s, with the various *Muridæ*, which are usually so abundant.

18. *CÆLOGENYS FULVUS*, F. Cuv.

C. fulvus, F. Cuv. Ann. du Mus. x. 206; Pr. Max. Beitr. ii. 454.
C. paca of Waterhouse's 'History of Mammalia.'

Although this is not admitted as a good species, distinct from *C. paca*, I have chosen to insert it under the above name, the better to identify it—whether a species or mere variety—with that part of South America from which it was received, as I do not meet with any notice of the occurrence of the commoner species, *C. paca*, in Ecuador. It was taken at Zamora in January 1858, and was brought to Mr. Fraser by the Indians, its Xivarro name being *Cushshay*. Mr. Fraser remarks that it was a young male, and that its flesh was white and delicate.

19. *DIDELPHYS AZARÆ*, Temm. Mon. i. 30.

D. aurita, Pr. Max. Beitr. ii. 392.

One specimen. It was taken at Cuenca in October 1857. Mr. Fraser states that it was killed in a nunnery, and proved to be a female, that it is accused of destroying "fowls, fruit, and grain," lives in the roofs of houses, and is nocturnal in its habits.

20. *DIDELPHYS CANCRIVORA*, Gmel. Linn. Syst. Nat. i. 108;
Temm. Mon. i. 32 (?).

But one specimen also of this Opossum has been received, and this I refer with some doubt to the above species. It resembles the specimens in the British Museum in all respects, save in being larger and in having shorter fur. A skull of *D. cancrivora*, which formed part of the Museum of the Zoological Society, and which, from the worn condition of the teeth, obviously belonged to an adult animal, is considerably smaller than that of the present specimen, but is otherwise similar.

21. *DIDELPHYS ORNATA*, Tschud. Faun. Peru. pl. 7. p. 146.

From the great similarity in the colouring and quality of the fur, Mr. Waterhouse regards this species as identical with his earlier described *D. derbyana*, notwithstanding that they are considerably unlike in point of size. The specimen collected by Mr. Fraser accords well with Dr. Tschudi's description in this respect, saving that the ears are evidently smaller. This general accordance with *D. ornata* has induced me to regard the latter as distinct from *D. derbyana*. It is probable that we have several species of these Woolly Opossums, which are at present more or less confounded with each other.

2. SYNOPSIS OF THE SPECIES OF THE GENUS PENELOPE.

BY G. R. GRAY, F.Z.S., ETC.

1. PENELOPE CRISTATA.

Nigra aut ferrugineo-brunnea; collo, pectore et corporis lateribus albo-limbatis; tectricibus alarum nitore virescentibus et violaceis; remigibus subpurpurascens; dorso, uropygio, femoribus et abdominis parte inferiore ferrugineo-nigris; dorso uropygioque æneo lavatis; cauda obscure nigra (ex. Edw.).

Meleagris cristata, Linn. S. N. i. p. 269; Edw. Birds, pl. 13.

Penelope purpurascens, Gray, Knowsl. Menag. pl. ?

Hab. West Indies (?) (Edw.).

2. P. MARAIL.

B.M.

Juv. *Uropygio, notæi parte reliqua, collo ac pectore æneo-nigris; plumis cervicis, dorsi supremi ac pectoris albo-limbatis; abdomine fusco et tectricibus rufescenti-fuscis nigro conspersis; plumis aurium cano-marginatis (Wagl.).*

Penelope marail, Gmel. S. N. i. p. 734, juv.; Wagl. Isis, 1830, p. 1110; Pl. Enl. 338, juv.

Salpiza marail, Wagl. Isis, 1832, p. 1226.

Penelope jacupema, Merr. Beytr. t. 11, adult?

Long. 24".

Adult. *Nigrescenti-ænea, viridi nitens; uropygio, femoribus, abdomine tectricibusque subcaudalibus nigrescenti-æneis, viridi nitentibus; primariis pallide rufescenti-brunneis.*

Hab. Guiana; Cayenne.

3. P. PURPURASCENS.

B.M.

Fuliginoso-olivacea, purpurino-splendens, gastræi plumis, dorsi supremi, ac tectricibus minoribus albo-limbatis; uropygio ac crisso sericeo-purpurino-castaneis (Wagl.).

Penelope purpurascens, Wagl. Isis, 1830, p. 1110.

Salpiza purpurascens, Wagl. Isis, 1832, p. 1226.

Long. 31½", cauda 15" 7".

Hab. Mexico.

4. P. NIGRICAPILLA.

B.M.

Virescenti-ænea; collo, pectore, dorsi supremi tectricibusque minoribus albo-limbatis; uropygio, abdomine tectricibusque subcaudalibus æneo-fuscis; illis rufo-conspersis; capite colloque superiore nigrescentibus; plumis pilei cano-limbatis.

Long. 28".

Hab. Brazil.

5. P. LICHTENSTEINII.

B.M.

Nitide olivaceo-ænea; crista nucaque brunneo-æneis, plumis

frontalibus albo-limbatis; superciliis ad latera partis denudatæ juguli extendentibus, et plumis auricularibus ad basin mandibuli inferioris, cinereo-albis; jugulo, pectore, nucha, dorsi parte superiore tectricibusque albo late marginatis; dorsi parte inferiore, uropygio et tectricibus supra-caudalibus brunneo-æneis, nigro reticulatis; abdomine, femoribus tectricibusque subcaudalibus brunneo-æneis fusco irregulariter fasciatis; cauda brunneo-ænea, plumis lateralibus purpurascanti-nigris, rufo-brunneo terminatis.

Penelope montana, Licht.?, Pr. B. Compt. Rend. 1856, p. 877.

Long. 25", caudæ 11".

Hab. Venezuela.

6. P. SCLATERI.

B.M.

Olivaceo-ænea; crista nigrescenti-ænea, cinereo-albo late limbata; superciliis ad latera partis denudatæ juguli extendentibus et tectricibus auricularibus cinereo-albo terminatis et late marginatis; pectore, lateribus, dorsi parte superiore alarumque tectricibus cinereo anguste limbatis; dorsi parte inferiore, uropygio tectricibusque supra-caudalibus rufo-castaneo-æneis; abdomine lateribusque rufo-æneis; abdominis parte inferiore femoribus tectricibusque subcaudalibus rufo-castaneis; cauda viridi-ænea.

Long. 24½", caudæ 10¾".

Hab. Bolivia.

7. P. BRIDGESI.

B.M.

Brunneo-ænea; plumis frontalibus albo-limbatis; pectore, lateribus, dorsi parte superiore alarumque tectricibus albo-limbatis; remigibus cinereo submarginatis; uropygio tectricibusque supra-caudalibus purpureo-æneis; corpore infra brunneo-æneo, rufo nigroque reticulato; cauda purpureo-ænea, brunneo-rufo marginata nigroque delicatule reticulata.

Long. 29", caudæ 14".

Hab. Bolivia.

8. P. PILEATA.

B.M.

Pilei plumis diffractis, albis, occipitis versus apicem isabellinis; pilei vitta laterali nigro-pilosa; collo ac gastræo castaneorubris, ex parte albo-limbatis; crista nigricante; dorsi plumis æneo-nigris albo-marginatis; remigibus caudaque æneo-nigris; pedibus flavis (Wagl.).

Penelope pileata, Licht., Wagl. Isis, 1830, p. 1110.

Salpiza pileata, Wagl. Isis, 1832, p. 1226; Gray, Knowsl. Menag. pl. ; Des Murs, Iconogr. Ornith. t. 23.

Long. 29", caudæ 13¼".

Hab. Para.

9. P. JACUACA.

B.M.

Virescenti-ænea, nitens; pilei plumis virescenti-fuscis; nucha,

pectore, corporis lateribus alarumque tectricibus albo-limbatis; uropygio, tectricibus supra- et sub-caudalibus abdomineque ferrugineo-rufis; cauda supra rufo virescentique ænea, subtus violaceo-nigra.

Juv. Pectoris parte inferiore, abdomine femoribusque ferrugineo-brunneis nigro-reticulatis; pilei plumis griseo-limbatis; uropygio tectricibusque supracaudalibus ferrugineo-æneis.

Penelope cristata, Lath. Ind. Orn. ii. p. 619; Wagl. Isis, 1830, p. 1110.

Penelope jacuaca, Spix, Av. Bras. t. 68 (juv.).

Penelope brasiliensis, Pr. B. Compt. Rend. 1856, p. 877.

Salpiza cristata, Wagl. Isis, 1832, p. 1226.

Long. 30", caudæ 13".

Hab. Brazil.

10. P. OBSCURA.

Pileo ac collo postico nigris; tectricibus ac plumis dorsi supremi nigricantibus necnon pectoris carmelitino-fuscis, albo-limbatis; tergo, ventre, tibiisque castaneis; [cauda nigra] (Wagl.).

Penelope obscura, Vieill. N. Dict. 36. p. 343.

Salpiza obscura, Wagl. Isis, 1832, p. 1226.

Long. 28", caudæ 11".

Hab. Paraguay.

11. P. BOLIVIANA.

B.M.

Viridi-ænea; plumis capitis, circa partem denudatam colli et aures cinereo-albo-marginatis; collo, dorsi parte superiori, alarum tectricibus, pectore abdominisque parte superiore albo limbatis; alarum tectricibus majoribus remigibusque cinereo submarginatis; uropygio obscure castaneo-æneo; abdomine, femoribus tectricibusque subcaudalibus rufo-castaneis, nigro reticulatis et rufo-albo-limbatis.

Penelope boliviana, Reichenb., Pr. B. Compt. Rend. 1856, p. 877.

Long. 31", caudæ 15".

Hab. Bolivia.

12. P. JACUCACA.

B.M.

Fuliginoso-nigricans, æneo-nitens; tectricibus, plumis sincipitis, juguli, pectoris ac epigastrii albo-marginatis; vitta superciliari nivea, inferius atro-marginata; aurium plumis nigris, albo-variolosis (Wagl.).

Penelope jacucaca, Spix, Av. Bras. t. 69.

Penelope jacupeba, Spix, Av. Bras. t. 71, juv.

Penelope superciliosa, Cuv.

Penelope superciliaris, Gray, Knowsl. Menag. pl.

Salpiza jacucaca, Wagl. Isis, 1832, p. 1226.

Long. 30".

Hab. Bahia.

13. P. SUPERCILIARIS.

B.M.

Aeneo-olivacea; jugulo pectoreque incanum vergentibus, plumis albo-cinctis; pennis scapularibus, remigibus ultimis tectricibusque magnis rufo-marginatis; vitta superciliari cano-albida; crisso et uropygio fusco-rufis (Wagl.).

Penelope superciliaris, Ill. Wagl. Isis, 1830, p. 1110.

Penelope jacupemba, Spix, Av. Bras. t. 72.

Salpiza superciliaris, Wagl. Isis, 1832, p. 1226.

Av. juv. *Vitta superciliari rufescente, limbo rufo pennurum scapularium ac remigum latiore* (Wagl.).

Long. $24\frac{1}{2}$ " , caudæ $11\frac{1}{2}$ " .

Hab. Brazil.

14. PENELOPE NIGRA.

B.M.

♂. *Nigra, cyaneo- aut viridi-nitens*; rostro, jugulo, tarsis pedibusque rubris.

♀. *Fusca, viridi-variegata, plumis singulis fasciis plurimis transversis ferrugineis*; plumis subtus pallidioribus et indistincte fasciatis.

Penelope niger, Fras. P. Z. S. 1850, p. 246. pl. 29.

Aburria carunculata, p. ?, Pr. B. Compt. Rend. 1856, p. 877.

Long. 23" , wings 9" .

Hab. Guatemala.

3. LIST OF BIRDS COLLECTED BY MR. FRASER AT BABAHOYO IN ECUADOR, WITH DESCRIPTIONS OF NEW SPECIES. BY PHILIP LUTLEY SCLATER, M.A., SECRETARY TO THE SOCIETY.

(Aves, Pl. CLXIV.)

Mr. Fraser arrived at Babahoyo from Quito on the 10th of July, 1859. This place is also called *Bodeyas*, being the spot where salt is deposited and pays duty. It is situate low on the banks of the river of the same name, about 200 miles N.E. of Guayaquil, and not above 200 or 250 feet above the sea-level. Mr. Fraser remained at Babahoyo during the month of August and part of September, when he left for Esmeraldas, higher up the Pacific Coast.

The number of birds obtained at Babahoyo was 395, belonging to 134 different species, of which I give the names as follows, with extracts from Mr. Fraser's MS. notes which accompanied the collection:—

I. PASSERES.

1. TURDUS ALBIVENTRIS, Spix.

Several ex. of both sexes. "*Consegero* or *Mirlo*."

2. CAMPYLORHYNCHUS ZONATOÏDES (Lafr.)?, Rev. Zool. 1846, p. 92.

Several ex. "*Paxaro tigre*: irides reddish-yellow; bill brownish

above, flesh-colour beneath; legs and feet yellowish. Very noisy, but seldom seen, keeping up a kind of cackle. They appear to be always in threes and fourſ.

More like the New-Granadian bird, which is probably Lafresnaye's *Campylorhynchus zonatoïdes*, than any other described species; but not so decidedly spotted below as in my single specimen of the latter.

3. *THRYOTHORUS ALBIPECTUS*, Cab.: Schomb. Guian. iii. p. 673.

"Irides hazel; bill black above, flesh-colour beneath; legs and feet blue."

Nearly agrees with an example from Santa Martha, N. G.

4. *TROGLODYTES FURVUS* (Gm.).

One ex., juv.

5. *POLIOPTILA BILINEATA* (Bp.), Consp. p. 316.

Two ex. "♂. Irides hazel; bill black; legs and feet black. In a tree in the bush. ♀. Bill black above, blue below; legs and feet blue."

6. *PARULA BRASILIANA* (Licht.).

One ex. "Stomach contained insects."

7. *GEOTHLYPIS SEMIFLAVA*, sp. nov.

♂. *Olivaceo-viridis: pileo antico et lateribus capitis totis nigris: subtus flava: tectricibus subalaribus pallide flavis: rostro superiore plumbeo, inferiore corneo: pedibus pallide corylinis.*

♀. *Obscurior, pileo concolore olivaceo: orbitis et loris flavescen- tibus.*

Long. tota 5·0, alæ 2·4, caudæ 2·1.

Hab. In rep. Equator.

Mus. P. L. S.

One ex. "Bill black; legs and feet orange."

Nearly allied to the Mexican *G. formosa*, mihi, P. Z. S. 1858, p. 447, but distinguishable by its paler green colouring above, and brighter, purer yellow below.

I have described the female from a specimen since transmitted by Mr. Fraser from Esmeraldas.

8. *BASILEUTERUS CHRYSOGASTER* (Tsch.): Tsch. Fann. Per. p. 192.

One ex., ♂. "Irides hazel; bill black; legs and feet yellow."

9. *VIREOSYLVA AGILIS* (Licht.): Bp. Consp. p. 329.

One ex., apparently not different from New-Granadian and Brazilian specimens.

10. *HYLOPHILUS* — ?

One ex., in bad condition.

11. CYCLORHIS VIRENTICEPS, sp. nov. (Pl. CLXIV.)

Olivaceus, pileo concolore: fronte et superciliis saturate castaneis: subtus flavus, ventre medio et crisso sericeo-albis: rostro brunneo, mandibula inferiore plumbea: pedibus carneis.

Long. tota 6·0, alæ 2·9, caudæ 2·3.

Hab. In rep. Equator.

Mus. P. L. S.

Four ex. "Irides hazel: found in the large trees in the bush." Stomach contained "insects," "a caterpillar." Sexes alike.

A distinctly marked species of this little group, making the seventh in my collection. It is immediately distinguishable by its green head—the same colour as the back. I have given a list of the other species of the genus in Proc. Z. S. 1858, p. 448.

12. COTYLE FLAVIGASTRA (Vieill.).

Three ex. "Very common."

13. DACNIS EGREGIA, Sclater.

One ex. "Gizzard contained seeds."

14. SALTATOR MAGNUS (Gm.).

Several ex.

15. SALTATOR FLAVIDICOLLIS, sp. nov.

Supra cinereus, nisi in uropygio et cauda olivaceo perfusus: superciliis et corpore subtus albis: pectore et collo antico flavo tinctis: rostro nigro, apice flavo: pedibus plumbeis.

Long. tota 8·0, alæ 3·8, caudæ 3·5.

Hab. In rep. Equator.

Mus. P. L. S.

A distinct species of *Saltator*, distinguished by the absence of all markings below, and the yellow tinge which pervades the throat and breast.

Three ex. "Irides hazel; bill black, tips and gape yellow. Common: very shy and active."

16. ARREMON ERYTHORHYNCHUS, Sclater, P. Z. S. 1855, p. 83. pl. 89.

Three ex. "In stomach, seeds and insects."

17. TACHYPHONUS LUCTUOSUS, Lafr. et D'Orb.

Two ex. "Bill black; legs and feet blue."

18. RAMPHOCELUS ICTERONOTUS, Bp.

Several ex. "By no means uncommon."

19. TANAGRA CANA, Sw.?

Several ex. of both sexes. "Irides hazel; bill black above, blue beneath; legs and feet dark lead-colour."



CYCLORHIS VIRENTICEPS



20. EUPHONIA CRASSIROSTRIS, Sclater, P. Z. S. 1856, p. 277.

One ex. "Bill black above, blue below; legs and feet blue. Very shy and quick: found in moderate-sized trees in the deep bush."

21. EUPHONIA XANTHOGASTRA, Sund. (?).

A single specimen, differing from the usual coloration of this species in having no white on the outer rectrices.

22. PROCNIA OCCIDENTALIS, Sclater.

One ex. "Irides hazel; bill black. Three or four were together on the top of a large tree in the deep bush. The stomach contained insects."

23. EMBERNAGRA CHRYSOMA, sp. nov.

Olivacea, axillis et tectricibus subalaribus flavissimis: capite cinereo, pilei striis duabus et vitta utrinque per oculos trans-eunte nigris: superciliis et corpore subtus albis, hoc latera-liter cinerascens: crisso flavicante: rostro nigro: pedibus clare brunneis.

Long. tota 7.0, alæ 3.3, caudæ 2.9.

Hab. In rep. Equator.

Mus. P. L. S.

Four ex. "Irides hazel; legs and feet flesh-colour. Common in the underwood of the deep bush: gizzard contained seeds."

This *Embernagra* is nearly allied to *Embernagra conirostris*, Bp., but distinguished by its larger size, bright yellow axillaries, and olive-green back. I am now acquainted with the following species, which I refer to this group:—

(1) *E. PLATENSIS** (Gm.): Bp. Consp. p. 483; ex Brasil. Merid. et Paraguay, &c. Mus. P. L. S.

(2) *E. LONGICAUDA*, Strickl.: Bp. Consp. p. 483. Mus. H. E. S.

(3) *E. CONIROSTRIS* (Bp.).—*Arremon conirostris*, Bp. Consp. p. 488; ex Nov. Granada int. et littorali. Mus. P. L. S.

(4) *E. CHRYSOMA*, *supra*.

(5) *E. CHLORURA*, Bp. Consp. p. 483.—*Pipilo chlorurus*, Baird, Rep. p. 519; ex Mex. Bor. Mus. P. L. S.

(6) *E. RUFIVIRGATA*, Lawrence: Baird, Rep. p. 487; ex Mex. Bor. Mus. P. L. S.

24. VOLATINIA SPLENDENS (Vieill.).

Two examples.

* I doubt the distinctness of *E. olivascens* (sp. 2 of P. Bp.'s Consp.) from this. *E. viridis* (P. Bp.'s 3rd species), at least the example in the Paris Museum, seems to be a bad specimen of the same bird.

25. SPERMOPHILA OPHTHALMICA, sp. nov.

♂. *Supra coracino-nigra: macula suboculari parva, speculo alari, uropygio et torque cervicali, postice evanescente, albis: subtus alba, torque pectorali lata nigra: rostro nigro, subtus corneo: pedibus nigris.*

♀. *Pallide fusca, subtus fulvescenti-albida.*

Long. tota 4.0, alæ 2.2, caudæ 1.8.

Hab. In rep. Equator.

Mus. P. L. S.

Three ex. "Common: sometimes in flocks."

This *Spermophila* is allied to *S. mysia* and *S. leucopterygia*, but has brighter and clearer colours. It may be recognized by the white subocular spot.

26. ORYZOBORUS ÆTHIOPS, Sclater, P. Z. S. 1860, p. 88.

Examples of both sexes. ♀. *Obscure brunneus, subtus magis ferrugineus: tectricibus subalaribus albis.*

27. ORYZOBORUS OCCIDENTALIS, sp. nov.

Nigerrimus: tectricibus subalaribus nigris: primariorum pogoniis internis et speculo alari exiguo albis: rostro albo: pedibus corneis.

Long. tota 5.5, alæ 3.0, caudæ 2.4.

Hab. In rep. Equator.

Mus. P. L. S.

One example. "Irides hazel; bill pinkish flesh-colour; legs and feet brown; gizzard contained seeds. In the bush in company with others."

This bird is a close ally of *O. crassirostris* of Guiana and Trinidad and *O. maximiliani* of Brazil, but has the under wing-coverts black, and the alar spot much smaller, almost obsolete. I have another example of the same species, received in a collection from Bogota.

28. CORYHOSPINGUS CRUENTUS (Less.).—*Tiaris cruenta*, Less. —*Lophospiza cruenta*, Bp. Consp. p. 470.

Examples of both sexes. ♀. *Fuscus: alis nigricantibus rufescente limbatis, subtus pallide fulvus.* "In the deep bush: on one occasion in a flock of 200: iides hazel."

29. CASSICULUS PREVOSTI (Less.): Bp. Consp. p. 428.

Three examples, agreeing with New-Granadian and Guatemalan specimens. "Irides pale yellow; bill yellow; legs and feet blue: found in the trees in the deep bush; by no means shy."

30. CASSICULUS FLAVICRISUS, sp. nov.

Nigerrimus: dorso postico, tectricibus alaribus dorso proximis,

crisso et reatricibus ad basin flavissimis : rostro plumbeo, apice albicante : pedibus nigris.

Long. tota maris 10·0, alæ 5·8, caudæ 4·0 ; fœminæ 8·5, alæ 4·4, caudæ 3·3.

Hab. In rep. Equator.

Mus. P. L. S.

Four examples. "Irides and bill blue : not shy ; very noisy, in flocks among large trees in the deep bush : stomach contained seeds and insects."

31. ICTERUS MESOMELAS (Wagler).

Many examples. "Irides hazel : in the deep forest, and by no means shy."

32. STURNELLA BELLICOSA, De Filippi.

Two ex. "*Chirote* : not uncommon in the plains, and apparently the same species as was observed in the corn-fields of Guaranda : stomach contained insects and seeds."

Rather smaller than the specimens noted (P. Z. S. 1858, p. 455) from Cuenca, but not otherwise different.

33. SCOLECOPHAGUS — ?

Two ex. of a species of this genus, said to be "common in company with the Garapateros (*Crotophaga*), and the greatest favourite as a cage-bird in the country."

34. FURNARIUS CINNAMOMEUS (Less.).—*Picolaptes cinnamomeus*, Less. Rev. Zool. 1844, p. 93.—*Furnarius longirostris*, v. Pelzeln, Sitz. Akad. Wiss. Wien, xx. p. 158.

Four ex. "*Oyero* : irides pale yellow ; base of lower mandible nearly white, remainder brown ; legs and feet flesh-colour. *Very* common on the plains in the smaller trees and on the tops of the houses, and very noisy. They run, but do not hop. They are said to breed in communities, and build in trees, with a roundabout entrance to the nest."

35. XIPHORHYNCHUS THORACICUS, sp. nov.

Brunneus: alis, uropygio, et cauda ferrugineo-rufis : gula sordide alba : dorsi superi capitis undique et pectoris plumis medialiter ochraceo-albidis, hoc colore nigro anguste circumdato, plumarum marginibus externis brunneis : rostro rubescente : pedibus fuscis.

Long. tota 10·0, alæ 4·0, caudæ 3·7, rostri a rictu ad apicem linea directa 2·7.

Hab. In rep. Equat.

Mus. P. L. S.

One ex. "Irides hazel ; bill brownish, paler at base of lower mandible ; legs and feet green : stomach contained insects. Shot running very actively up the trunk of a large tree in the deep forest."

A distinctly marked species of this singular group of *Dendrocolaptes*, easily recognizable by the clear elongated spots occupying the centre of the feathers of the breast and back. These spots are narrowly surrounded with black, and broadly margined outwardly with the general brown ground-colour. Its size is nearly that of *X. procurvus*, but the bill is rather shorter and more regularly curved. I may add that I possess examples of all the five species described by M. de Lafresnaye in his account of this group (Rev. de Zool. 1850, p. 373 *et seq.*), and two additional, namely the present and another which I consider new*.

36. *PICOLAPTES SOULEYETII*, Lafr. Rev. Zool. 1850, p. 276 ; Des Murs, Icon. Orn. pl. 69.

Several ex. "Irides hazel."

37. *DENDROCOPS ATRIROSTRIS*, Lafr. et D'Orb.

Two ex. "Irides hazel ; bill black ; legs and feet lead-coloured."

38. *SITTASOMUS ERITHACUS* (Licht.).

Two ex. "Irides hazel." This bird seems scarcely recognizable from Eastern specimens, except by the slightly different tinge of chestnut on the rump and tail.

39. *SYNALLAXIS PUDICA*, Sclater, P. Z. S. 1859, p. 191.

Several ex., not in very good condition, but seemingly sufficiently like Bogotan skins. "Irides whitish."

40. *THAMNOPHILUS TRANSANDEANUS*, Sclater, P. Z. S. 1855, p. 18.

Many ex. of both sexes. "Irides red ; bill black ; legs and feet blue : found near the ground in the deep bush."

41. *THAMNOPHILUS NÆVIUS* (Gm.).

Three ex. "Skulking about in the underwood."

42. *DYSITHAMNUS SEMICINEREUS*, Sclater, P. Z. S. 1855, p. 90, pl. 97.—*D. mentalis*?, Sclater, P. Z. S. 1860, p. 67.

Three ex. Only differing from New-Granadian birds in having the throat rather whiter : erroneously referred before to *D. mentalis*.

* *XIPHORHYNCHUS PUSILLUS*, mihi.

Brunneus : alis, cauda, et uropygio ferrugineo-rufis : capite nigricante et cum dorso superiore fulvo longitudinaliter lineolato : gula fulva : subtus dorso concolor, sed plumis omnibus linea lata et elongata fulva medialiter notatis : ventre imo crissoque immaculatis : rostro albicanti-corneo, basi obscura : pedibus virescenti-fuscis.

Long. tota 8·0, alæ 3·8, caudæ 3·5, rostri a rictu ad apicem lin. dir. 2·0.

Hab. In Nov. Granada int.

Mus. P. L. S.

Obs. Affinis *X. procurvoidei* ex Cayenna, sed minor, et lineis longitudinalibus fulvis ventrem occupantibus prorsus nota bilis.

43. FORMICIVORA CONSOBRINA, sp. nov.

♂. *Atra*: *dorsi postici totius plumarum basibus, maculis tectricum minorum parvis rotundis, et tectricum majorum et caudæ rectricum apicibus albis.*

♀. *Supra mari similis, subtus saturate castanea.*

Long. tota 4·2, alæ 1·8, caudæ 1·8.

Hab. In rep. Equator.

Mus. P. L. S.

One pair. "Irides hazel."

Allied closely to *F. quixensis* and *F. boucardi*, particularly to the former, but differs in its smaller size and the uniform rich chestnut colouring of the female below; in *F. quixensis* the female's throat being black, and in *F. boucardi* the female being wholly of a paler red below.

44. CERCOMACRA MACULOSA, sp. nov.

♂. *Cinerea*: *interscapulii macula celata, tectricum alarium nigrarum marginibus et rectricum apicibus albis: gutturis et prorsus antici plumis medialiter albis nigro circumcinctis: rostro corneo: pedibus fuscis.*

♀. *Fuscescenti-olivascens, subtus ferruginea, lateraliter fuscescens.*

Long. tota 6·0, alæ 2·5, caudæ 2·5.

Hab. In rep. Equator.

Mus. P. L. S.

Three examples in bad condition. "Creeps about in the under-wood; often heard, but seldom seen."

45. PYRIGLENA PICEA, Cab. Orn. Not. p. 212.

Two ex. "Irides red; bill, legs, and feet black: creeping about in the underwood: stomach contained insects."

Blacker than the Eastern *P. atra*, though otherwise very similar, and perhaps referable to Cabanis's species.

46. CHIROMACHÆRIS MANACUS (Linn.).

Two ex. "Bill black, base of lower mandible pale; legs and feet blue, nearly black: stomach contained insects and fruit."

47. PACHYRHAMPHUS HOMOCHROUS, Sclater.

Many ex. of both sexes.

48. PACHYRHAMPHUS SPODIURUS, sp. nov.

♂. *Cinereus*: *loris albidis: capite toto cum dorso superiore nigro: alis nigricantibus, albo extus limbatis: cauda nigricanti-cinerea, rectricum marginibus pallidioribus et ipsis apicibus albicantibus: subtus dilute cinereus, remigum pogoniis internis partim albis.*

♀. *Castaneus, subtus dilutior, gutture albicantiore, remigum pogniis interne nigricantibus.*

Long. tota 5·5, alæ 3·0, caudæ 2·3.

Hab. In rep. Equator.

Mus. P. L. S.

Four ex. No. 2270, “♂. Irides hazel; bill blue; legs and feet dark: in stomach, insects and vegetable matter: found in the top of a tree in the thick bush.” No. 2152, “♀ by diss.; bill black above, blue below; legs and feet blue.”

This Becard is distinct from any of those enumerated in my Synopsis of these birds (P. Z. S. 1857, p. 67). It differs from all the *Bathmiduri* (Sect. D) in wanting the broad white terminations to the tail-feathers, and I am inclined to consider *P. cinereus* its nearest ally. The second primary of the male is of the usual abnormal character. It is shorter by 0·85 (inch) than the first, and slightly bifid at the extremity.

49. *ATTILA TORRIDUS*, sp. nov.

Ferrugineo-rufus: uropygio et corpore subtus dilutioribus et præcipue in gutture et ventre imo magis citrinis: alis fusco-nigricantibus rufo limbatis, secundariis dorso proximis omnino rufis: cauda unicolore rufa: rostro et pedibus nigris.

Long. tota 8·0, alæ 4·0, caudæ 3·5, rostri a rictu 1·2.

Hab. In rep. Equat.

Mus. P. L. S.

Three ex. “Irides hazel; bill black; legs and feet blue. Seen high in the interior of a large tree.”

This *Attila* is most nearly allied to *A. thamnophiloides* (Spix), of the species with which I am acquainted*, but distinguishable by its longer and rather stronger bill, the much lighter rufous colouring above (which in *A. thamnophiloides* is chestnut), and lemon-yellow belly. The wings are also considerably longer.

50. *FLUVICOLA ATRIPENNIS*, sp. nov.

Alba: striga per oculos, alis, et cauda nigris, secundariis alarum anguste, rectricibus late albo terminatis: interscapulio pallide cinereo: rostro et pedibus nigris: tectricibus subalaribus albis.

Long. tota 5·5, alæ 3·0, caudæ 2·5.

Hab. In rep. Equator.

Mus. P. L. S.

Obs. Affinis *F. climacuræ*, ex Brasilia, sed alis intense nigris, secundariis albo limbatis, interscapulio dilutiore et tectricibus subalaribus albis diversa.

Several ex. “Irides hazel; bill, legs, and feet black. Very common everywhere, particularly on the road, feeding on the ground and perching on the fences. Very sprightly in action, carrying the head erect, and constantly wagging the tail up and down like a Wag-tail (*Motacilla*).”

* For a list of other species of *Attila*, see P. Z. S. 1859, p. 41.

51. MUSCIGRALLA BREVICAUDA, Lafr. et D'Orb.

One ex. "Irides hazel; bill black, base of lower mandible blue; legs and feet flesh-colour. Seen on some dead brushwood by the road-side."

52. MEGARHYNCHUS CHRYSOGASTER, sp. nov.

Megarhyncho mexicano et M. pitanguæ affinis, sed ab utroque colore abdominis lætissime aureo diversus: quoad rostrum et crassitiem his duabus intermedius.

One ex. A third climatal variety or species, whichever it may be, of this genus of *Tyrannidæ*, distinguished by its full bright yellow belly. The only specimen is not in very good plumage; but Mr. Fraser has since sent another from Esmeraldas. In accordance with M. Heine's views (Cab. Journ. f. Orn. 1859, p. 337), I now employ *Megarhynchus* as a generic name for these birds. But is not *this* species the bird considered by him as *Scaphorhynchus chrysocephalus* of Tschudi? Tschudi's figure is certainly detestable; but his species, of which I have specimens collected by Mr. Fraser at Pallatanga, is well marked, and can in no way be considered as a climatal variety of *M. pitangua*. It is more closely allied, in my opinion, to *Myiodynastes*, though, as I have remarked (P. Z. S. 1859, p. 43), "leading off towards *Scaphorhynchus*," i. e. *Megarhynchus*.

53. TYRANNUS MELANCHOLICUS, Vieill.

Many ex.

54. TYRANNUS NIVEIGULARIS, sp. nov.

Supra cinereus, dorso olivaceo perfuso, capitis crista interne flava: loris et regione auriculari nigricanti-cinereis: alis nigris, primariis stricte, secundariis et tectricibus late albido limbatis: cauda nigra unicolore, rectricum apicibus et harum externarum marginibus externis vix albicantibus: caudæ tectricibus superioribus nigris, olivaceo terminatis: subtus pallide flavus, gutture et collo antico pure albis, hujus lateribus et pectore summo cinereo vix lavatis: rostro et pedibus nigris.

Long. tota 7·0, alæ 4·1, caudæ 3·1.

Hab. In rep. Equator.

Mus. P. L. S.

One ex. "Irides hazel; bill and legs black."

A species of true *Tyrannus*, looking to its general structure and acuminated primaries, distinguishable by its small size, pure white throat and neck, and black tail. The primaries of the single specimen are not fully developed; but the three first are somewhat obtusely acuminated, quite as much as in *T. melancholicus*.

55. MYIARCHUS PHÆOCEPHALUS, sp. nov.

Pallide olivaceus: capite cinereo, pileo summo obscuriore: alis fusciscenti-nigris, primariis stricte, tectricibus et secundariis latius ochracecente marginatis: subtus pallide flavus, gutture

toto pallide cinereo: cauda nigricanti-fusca, rectricum extimarum marginibus et omnium apicibus dilutioribus: rostro nigricanti-corneo: pedibus nigris.

Long. tota 7·0, alæ 3·5, caudæ 3·4, rostri a rictu 1·0.

Hab. In rep. Equator.

Mus. P. L. S.

Two examples, not in good condition, of this apparently unnoticed species of *Myiarchus*; of the size and general structure of *M. ferox*, but recognizable by its pale, rather greyish, olive back and dusky-grey head.

56. MYIOPHOBUS — ?

57. MYIOPHOBUS — ?

Two species of this division of *Tyrannidæ* (as typified by *M. virgatus*) are in the collection. These, with others of this very difficult group, I must leave for future determination.

58. PYROCEPHALUS NANUS, Gould?

Numerous examples of a *Pyrocephalus*, which agree with the description of *P. nanus* in having the outer margins of the external rectrices and tips of all "light greyish-brown." It does not, however, seem to be inferior in size to the Eastern species, as far as I am able to judge by the specimens in my possession.

59. MYIOBIUS BARBATUS (Gm.).

Two ex., apparently not different from the Eastern bird.

60. CYCLORHYNCHUS SUBBRUNNEUS, sp. nov.

Brunnescenti-oleagineus: alis nigricantibus, fulvescenti-brunneo extus marginatis: cauda rufescenti-fusca unicolore: subtus pallide cineraceus, olivaceo perfusus, gutture et ventre medio dilutioribus: tectricibus subalaribus fulvescentibus: rostro superiore nigro, inferiore flavo: pedibus plumbeis.

Long. tota 7·5, alæ 3·4, caudæ 3·2.

Hab. In rep. Equator.

Two ex. "Irides whitish." This Tyrant may, I think, be well placed in the genus *Cyclorhynchus*, although not a typical member of the group. The bill is much more elongated than that of *C. olivaceus*, and not so broad at the base, but does not differ in proportions from that of *C. flaviventris*. The third and fourth primaries are nearly equal, and longest in the wing; the fifth is slightly shorter; the sixth nearly of the same length as the second.

61. MUSCIVORA OCCIDENTALIS, sp. nov.

Mr. Fraser has sent three specimens of a Crowned-Tyrant from Babahoyo, which will probably require a new name, as being distinct from the species at present known. It differs from *Muscivora regia*

of Cayenne and *Muscivora swainsoni* of Brazil* in its much longer bill, in which respect it approaches *M. mexicana*. Its crest is of a brighter blood-red than that of *M. regia*; the back is brown, without any olive tinge; the rump is of a brighter ferruginous, and the tail is longer. In a Synopsis of the *Tyrannidæ* which I am now preparing, I hope to be able to give further details concerning this and other groups of the same family.

62. TODIROSTRUM CINEREUM (Linn.).

Three ex.

63. TODIROSTRUM SQUAMICRISTATUM (Lafr.).

64. TODIROSTRUM — ?

An imperfect skin of a third species of this genus.

65. MYIOZETETES GUIANENSIS, Cab. & Hein., Mus. Hein. ii. p. 61.

Several examples of a species which I am not at present able to distinguish from this bird.

66. ELAINEA — ?

67. ELAINEA — ?

Examples of two species of this group of *Tyrannidæ*.

68. EUPSILOSTOMA PUSILLUM, Sclater, P. Z. S. 1860, p. 68.

Several ex.

69. TYRANNULUS CINEREICEPS, Sclater, P. Z. S. 1860, p. 69.

One ex.

70. MIONECTES OLEAGINEUS (Licht.).

One ex.

71. LEPTOPOGON — ?

One ex. of a species of this group, in an imperfect state. It seems to be different from *L. superciliaris*, and is probably new.

72. AMAZILIA DUMERILII.

Many ex. "Bill red with black tip."

73. AMAZILIA RIEFFERI.

Many ex. "Noticed feeding from the bark of a large tree in the forest."

74. JULIAMYIA TYPICA.

Many ex. "Irides hazel; upper mandible black, lower red with

* Confer v. Pelzeln in Sitz. Akad. Wien, xxxi. p. 326.

black tip ; legs and feet nearly black. Not very common, and only found in the deep bush, where they feed on the tops of largish trees."

75. LAMPORNIS MANGO.

Two ex. "Bill, legs, and feet black. From a low tree on the way-side."

76. NYCTIDROMUS — ?

One ex., in very bad condition.

77. CERYLE TORQUATA (Linn.).

One ex. "Irides hazel ; bill black, with a whitish spot at the base of the upper mandible, and the basal half of the lower mandible of the same colour ; legs and feet nearly flesh-colour. Frequents the larger trees ; stomach contained fish-bones and scales."

78. CERYLE AMERICANA (Gm.).

Three ex. "Irides hazel : very common on the branches of the trees which overhang the river in retired places ; flies swiftly, and feeds on fish."

79. BUCCO LEUCOCRISUS.

Similis Bucconi macrorhyncho ex Cayenna, sed rostro majore, fronte latiore albo, torque pectorali angustiore et ventre medio crissoque pure albis distinguendus.

Hab. In rep. Equator.

Mus. P. L. S.

If *Bucco macrorhynchus* of Cayenne, *B. swainsoni* of Brazil, *B. hyperrhynchus* of the Upper Amazon, and *B. dysoni* of Central America are to be considered good species, then this must constitute a fifth, and another, of which I have two examples from the Rio Napo, a sixth species of the section. The alternative is to regard them all as localized varieties of one widely distributed species ; but even in that case they would require separate names and descriptions.

80. MOMOTUS — ?

Several examples of a species most nearly allied to *M. microrhynchus* of New Granada, but perhaps ultimately separable.

81. TROGON MELANURUS, Sw. : Gould, Mon. Trogon. pl. 18.

Several ex. "*Chocota* : irides white ; upper mandible with a large yellow spot at the base, lower mandible yellow ; legs and feet greenish ; soles yellow. Much more active than any other *Trogon* which I have yet had an opportunity of observing, hopping from branch to branch in the lower part of a large tree in the deep bush. Solitary and silent. Stomach contained berries of two kinds, and a caterpillar."

82. TROGON CALIGATUS, Gould, Mon. Trogon. pl. 7.

"Irides red ; cere yellow ; legs and feet blue. Stomach of

ex. 2279 contained seeds, and grasshoppers and other insects ; of 2317, seeds and vegetable matter.”

II. SCANSORES.

83. PIAYA NIGRICRISSA.

Piaya mehleri, Sclater, P. Z. S. *passim*, nec Bp.

Three examples. I have hitherto considered the New-Granadian and Peruvian form of *Piaya* as referable to *P. mehleri* of Prince Bonaparte. Having lately been able to examine his type in the Leyden Museum, I find that the locality given to it must have been wrong, for the bird in question is the species of the Mexican *tierra caliente* and Guatemala, which I have lately named *Piaya thermophila* (P. Z. S. 1859, p. 368). The species of *Piaya* allied to *P. cayana* in my collection are the following :—

(1) *Piaya macrura* (Gambel, Journ. Acad. Philad. i. p. 215.—*P. circe*, Bp. Consp. i. p. 110), ex Guiana.

(2) *Piaya cayana*, ex Cayenna et ins. S. Trinit.

(3) *Piaya nigricrissa*, mihi, ex Nov. Granada, rep. Equat. et Peruv.

(4) *Piaya mehleri*, Bp. (Consp. p. 110, *mexicana*, olim, et *thermophila*, nuper, Sclater), ex reipubl. Mexicanæ reg. calida et Guatemala.

(5) *Piaya mexicana*, Sw. (Sclater, P. Z. S. 1859, p. 368), ex rep. Mexicana Oaxaca.

84. PIAYA RUTILA (Vieill.): Bp. Consp. p. 110.

Three examples.

85. DIPLOPTERUS NÆVIUS (L.).

Two ex., immature.

86. CROTOPHAGA ANI, Linn.

One ex. “*Garapatero*: irides hazel; bill, legs, and feet black. This is the only species of bird I have seen in Ecuador in anything like numbers: there must be thousands of them. They are extremely common round the town and on the plains, in fact near every place where cattle feed. They are generally seen near the nose of the beasts, and occasionally fly up to capture insects. They do not perch on the cattle. When disturbed they fly (with three flaps of the wings, then a sail, and then flaps repeated) off to the nearest bush, where they sit huddled together in a heap.”

87. CROTOPHAGA SULCIROSTRIS, Sw.

Three examples, agreeing with the Central American and Mexican bird. “*Garapatero*: from the deep bush among the underwood; the note sounded to me very different from that of those on the plains” (probably *C. ani*). “Stomachs contained insects and seeds.”

88. PTEROGLOSSUS ERYTHROPYGIUS.

Three ex. "These birds fly swiftly and heavily, in a straight line, and drop suddenly on a branch like a *Trogon*."

89. CENTURUS PUCHERANII (Malh.).

Four ex. "Irides hazel." Agrees with specimens in my collection from Mexico and Guatemala.

90. CHLORONERPES RUBIGINOSUS (Sw.).

Four ex. "Flight quick, but heavy."

91. CHLORONERPES CECILII (Malh.)?

Two ex., probably referable to this species, but in a bad state of preservation.

92. CHLORONERPES CALLONOTUS (Waterh.).

Picus callonotus, Waterhouse, P. Z. S. 1840, p. 182.—*P. cardinalis*, Less., Echo d. M. S. 1845, p. 9; Des Murs, Icon. Orn. pl. 59.—*Venilia callonota*, Bp. Consp. p. 129.

Three ex. "Irides hazel; bill bluish horn-colour; legs and feet bluish."

Prince Bonaparte, mistaking the true locality of this species, placed it in his genus *Venilia*. There are examples in the British Museum procured in the island of Puna in the Gulf of Guayaquil by Mr. Barclay, and Lesson's type is said to have been from Guayaquil.

93. CELEUS UNDATUS (Linn.): Bp. Consp. p. 129.

One ex., ♀. Probably of this species, of which I do not possess other specimens.

94. DRYOCOPUS SCLATERI, Malh. (*antea*, p. 71).

One ex. I much suspect that this will turn out to be the *Picus guayaquilensis* of Lesson, Echo d. M. S. 1845, p. 920.

95. DRYOCOPUS FUSCIPENNIS, sp. nov.

Niger: *linea capitis collique laterali, scapularibus dorso proximis et tectricibus subalaribus flavido-albidis: remigibus reetricibusque præcipue in marginibus externis fusciscentibus: abdomine cinerascens-fusco, nigro maculato: rostro et pedibus nigris: ♂ plaga malari et capite toto cristato coccineis: ♀ fronte nigra.*

Long. tota 13·0, alæ 6·8, caudæ 5·2.

Hab. In rep. Equator.

Mus. P. L. S.

Four examples. This apparently undescribed Woodpecker is a close ally of the Brazilian *D. lineatus*, but may be distinguished by the brown colouring of the wings and tail and the absence of distinct markings on the abdomen. The crissum is brownish cinereous, edged with white, instead of being distinctly banded with black.

96. PICUMNUS GRANADENSIS (Lafr.).

Three ex. As in a former specimen from Nanegal*, the spots on the head of the male are yellow instead of red, which is their colour in my New-Granadian examples; but I do not detect other differences.

97. CONURUS ERYTHROGENYS (Less.).

Two ex. "*Catanica*: stomach contained seeds."

98. BROTOGERYS PYRRHOPTERUS (Lath.).—*Psittacu pyrrho-*
pterus, Lath. Ind. Orn. Suppl. p. xxxii.

Many ex. "*Perico*: irides hazel; bill, cere, and legs flesh-colour. Common on the tops of the highest trees: not so shy as most Parrots. In Guayaquil I saw this species in hundreds in the gardens of the town-houses." Stomachs contained "seeds."

99. PIONUS MENSTRUUS (Linn.).

One ex. "*Loro*: stomach contained seeds."

100. PSITTACULA CÆLESTIS (Less.).

Many ex. "*Vivina*: beak, cere, legs and feet pale flesh-colour. Stomach contained seeds: very common everywhere, in small flocks in the trees, and noisy."

III. ACCIPITRES.

101. CATHARTES AURA (Linn.).

One ex., ♀. "Irides brown; beak white; legs and feet white; head and neck red; corrugations in front of the eyes and three transverse plates on the top of the head white. There were several specimens about, but not *in* the town. I have seen three together."

102. CATHARTES ATRATUS.

Four ex. "*Gallinazo*." Spec. 2186, "♂. Irides hazel; bill greenish horn-colour; legs and feet black. Here in hundreds. I am inclined to think this bird distinct from the mountain species." Spec. 2329, "♀. Bill black, with a bluish culmen, and a blue spot on the upper mandible near the cere; legs greenish; feet black, with a mouldy appearance between each scale; no corrugations about head or neck; the feathers of the back of the neck stand reversed. These birds are said to scratch away the sand and devour the eggs laid by the Alligators, which are here by thousands." Spec. 2384, "Beak bluish horn-colour; head and neck black, with the corrugations thickening as they get lower down; legs and feet black, with a mouldy appearance between the scales, which I imagine to be dirt." "I noticed a *Gallinazo* in the river some yards from the bank; he

* P. Z. S. 1860, p. 95.

swam bravely and landed in safety. Others, collected on the bank, drank and bathed."

103. *POLYBORUS THARUS* (Mol.).

"*Curicinga*." "Contents of stomach, insects and maggots. Very common on the plains, and by no means shy; sometimes found in high trees."

104. *URUBITINGA ZONURA* (Shaw).

Three ex. Spec. 2394, "♀. Irides hazel; bill black, with a blue spot at the base of the upper mandible and base of the lower mandible; cere, face, gape, legs and feet yellow. Killed at the top of a tall tree; not shy; stomach contained fish and frogs." Spec. 2422, "♂. Bill black, with a blue spot at the base of the upper and lower mandible; cere greenish; face bluish; legs and feet yellow, with the exception of some blackish scales down the front of the tarsi and toes."

105. *BUTEOGALLUS MERIDIONALIS*.

Six ex. Spec. 2177, "Irides hazel; bill black; cere, legs and feet yellow: stomach contained hair and small beetles." Spec. 2261, "♂. Irides brownish-yellow; upper mandible blue, with black tip,—lower, base blue, then yellow, tip black; cere and gape yellow; legs and feet orange." This bird is seen sitting on the fences, tops of trees, &c., and utters a shrill cry. It is very destructive to the poultry. Stomach contained in one example "grasshoppers and other insects," in another "hair of mammals."

106. *SPIZIGERANUS UNICINCTUS* (Temm.).

One ex., ♂. "Irides reddish-hazel; bill blue, with black tip; cere, face, legs and feet yellow: stomach contained grasshoppers."

107. *HERPETOTHERES CACHINNANS*.

One ex. "♂. Irides hazel; bill black; cere orange; legs and feet orange: stomach contained a snake."

108. *ASTURINA MAGNIROSTRIS*.

Several ex.

109. *ASTURINA NITIDA*.

Two ex. Spec. 2326, "♂. Irides yellow; beak black, with blue base; cere, gape, legs and feet yellow: stomach contained remains of a snake and insects."

110. *GERANOSPIZA CÆRULESCENS* (Vicill.).

Two ex. Spec. 2159, "♂. Irides red; upper mandible black, with a blue spot at the base; under mandible blue; legs and feet red: stomach contained grasshoppers: by no means shy; seen feeding on the plains."

111. *ROSTRHAMUS SOCIABILIS*.

One ex.

112. *CYMINDIS CAYANENSIS*.

One ex. ♂. Found in the deep bush ; a dull bird.

113. *GLAUCIDIUM FERRUGINEUM*.

One ex. "Irides yellow ; bill greenish-yellow ; feet yellow."

114. *GLAUCIDIUM INFUSCATUM* (Temm.).

Two ex.

IV. COLUMBÆ.

115. *COLUMBA VINACEA*, Temm.One ex. "*Paloma real*."116. *COLUMBA RUFINA*, Temm.

Three ex. "*Paloma cuculi*: irides orange ; bare space round the eye red ; bill black ; legs and feet red. Common, but very shy ; found in the deep bush : feeds principally on the ground."

117. *LEPTOPTILA VERREAUXII*, Bp. Consp. ii. p. 73.

Two ex., agreeing with the Pallatanga bird : the inner webs of the primaries in this species are wholly rufous. I am not sure as to its distinctness from *L. rufaxilla* of Cayenne ; but it appears different from the Mexican form which bears the latter name.

118. *LEPTOPTILA ALBIFRONS*, Bp. Consp. ii. p. 74 ?

One ex. of a species belonging to this section of the division *Lep-
toptila*, perhaps more strictly referable to Prince Bonaparte's *L. du-
busi*, having the lateral tail-feathers black.

119. *COLUMBULA CRUZIANA* (D'Orb.) ?

One ex. "Irides white ; bill black, with base of lower mandible flesh-colour ; legs and feet flesh-colour : very common everywhere."

120. *TINAMUS* — ?

An imperfect skin of a small species allied to *T. parvirostris*.

121. *ORTALIDA RUFICEPS* (Wagler).—*Penelope ruficeps*, Wagler, Isis, 1830, p. 1111.

Four ex., seemingly agreeing with Wagler's description. "*Gua-
characa*: irides hazel ; bill blue ; face bluish ; throat reddish ; legs
and feet blue. Very shy, but noisy : always in small communities
in the high trees : stomachs contain seeds and leaves." Its note is
said to be "*Trabaja—trabaja*" (Work—work), to which the response
of the answering bird is said to be "*¿ Para que ? ¿ Para que ?*"
(Wherefore ?).

122. ARAMUS SCOLOPACEUS (Gm.).

Agrees with S. American examples. "Irides hazel; bill yellow and black; legs and feet black: from a small lagoon in the deep bush, sitting on the ground."

123. NYCTICORAX VIOLACEUS (Gm.).

One ex., not adult.

124. TIGRISOMA TIGRINUM (Gm.).

One ex. in immature plumage.

125. EGRETTEA LEUCE.

One ex. in bad condition, but apparently of this species. Stomach contained "fish and grasshoppers."

126. TANTALUS LOCULATOR, Linn.

One ex. in bad condition.

127. HOPLOPTERUS CAYANUS (Lath.).

Several ex.

128. HIATICULA COLLARIS (Vieill.).—*Charadrius azaræ*, Temm.

One ex. "Irides hazel; bill black; legs and feet flesh-colour."

129. HIMANTOPUS NIGRICOLLIS, Vieill.

One ex.

130. MICROPALAMA HIMANTOPUS, Bp.

Two ex. of this species killed in September,—the first I have seen from so far south.

131. GAMBETTA FLAVIPES (Gm.).

One ex. "Irides hazel; bill black; legs and feet orange. Common about the ponds that are left on the plains in the dry season. Noisy and shy."

132. PARRA JACANA, Linn.

Three examples in different states of plumage. "Irides hazel; bill and spurs orange; cere, wattles, and base of upper mandible deep red or lake; legs and feet bluish. Common about the lagoons, but shy: dives well."

133. RHYNCOPUS NIGRA, Linn.

One ex. "Seen skimming over the surface of the lagoons, and occasionally dipping its bill in the water."

134. PHALACROCORAX — ?

Two ex. of a species of Cormorant in bad condition.

4. LIST OF BIRDS COLLECTED BY MR. FRASER AT ESMERALDAS, ECUADOR, WITH DESCRIPTIONS OF NEW SPECIES. BY P. L. SCLATER.

Mr. Fraser passed part of October, November, and December 1859, at Esmeraldas, on the coast of Ecuador, on his route from Guayaquil to Panama by sea. During his stay he collected about 170 specimens of birds, belonging to 93 species, of which I have subjoined the names, as far as I have been able to determine them. Many of the species obtained at Babahoyo occur again in the present series; but there are several new and of interest which were here met with for the first time.

1. POLIOPTILA BILINEATA (Bp.): Sclater, P. Z. S. 1855, p. 12.
Two ex. "Stomach contained insects."

2. CYPHORINUS PHÆOCEPHALUS, sp. nov.

Supra saturate brunneus, pileo nigricante: alis et cauda extus nigro obsolete transfasciatis: subtus dilutior: gula, collo et pectore toto antico intense ferrugineo-rufis: rostro nigricanti-corneo: pedibus fuscis.

Long. tota 4·8, alæ 2·5, caudæ 1·3.

Hab. In rep. Equator. Occ.

Mus. P. L. S.

Two ex. "Flying from bush to bush, singing: some four or five others near the same spot."

Nearly allied to *C. modulator*, D'Orb.; but distinguished by its dusky head, larger bill, and the deeper brown colouring of the throat.

3. THRYOTHORUS NIGRICAPILLUS, Sclater, P. Z. S. 1860, p. 84.

Three examples. The specimen previously described was not quite mature. An adult bird has the whole throat and breast pure white, the cross-markings having disappeared.

4. TROGLODYTES FURVUS (Gm.).

Two examples.

5. DENDRÆCA AUREOLA (Gould)?

Sylvicola aureola, Gould, Zool. Beagle, ii. p. 86. pl. 28.

One ex., probably a female of this species, which is doubtless the representative of *D. æstiva* in this region.

6. GEOTHLYPIS SEMIFLAVA, Sclater, *antea*, p. 273.

Examples of both sexes.

7. PARULA BRASILIANA (Licht.).

One ex.

8. BASILEUTERUS SEMICERVINUS, Sclater, *antea*, p. 84.

One ex.

9. *SETOPHAGA RUTICILLA* (Linn.).
Two ex.
10. *PROGNE DOMINICENSIS* (Gm.).
One ex.
11. *COTYLE RUFICOLLIS* (Vieill.).—*Hirundo ruficollis* et *H. flavigaster*, Vieill.
Two examples differing from Eastern specimens only in having the rump whitish. The same is the case in the young bird noted *antea*, p. 274.
12. *CHLOROPHANES ATRICAPILLA* (Vieill.).
One ex. "From a lofty tree in a Cacao plantation."
13. *DACNIS EGREGIA*, Sclater, P. Z. S. 1854, p. 251.
♀. *Dilute olivacea, abdomine flavo.*
Two ex. ♂ et ♀. ♂, "irides bright orange; in stomach vegetable matter." ♀, "irides deep orange; bill black; base of lower mandible blue: killed in the top of a lofty tree: in stomach black seeds."
14. *CERTHIOLA LUTEOLA*, Cab.
One ex. ♀. "In stomach insects."
15. *PROCNIAS OCCIDENTALIS*, Sclater.
One ex. ♀. "Killed in the top of a lofty tree when in company with a male: stomach contained ants and a large green caterpillar."
16. *CALLISTE CYANEICOLLIS* (Lafr. et D'Orb.).
Two ex. "From high trees:" in stomachs "insects and vegetable matter."
17. *CALLISTE GYROLOIDES* (Lafr.).
Three ex. "From tall trees."
18. *TANAGRA MELANOPTERA*, Hartl.
One ex. Stomach contained "a seed and vegetable matter."
19. *TANAGRA CANA*, Sw. ?
"Found in companies of three or four in the lofty trees in the Cacao plantations."
20. *TACHYPHONUS LUCTUOSUS* (Lafr. et D'Orb.).
Two ex. ♂ et ♀. "In the underwood near the ground."
21. *RAMPHOCELES ICTERONOTUS*, Bp.
Many ex. "Common in small parties of from two to six."

22. *PYRANGA ÆSTIVA* (Linn.).
Three ex.
23. *ARREMON ERYTHORHYNCHUS*, Sclater.
24. *SALTATOR MAGNUS* (Gm.).
Three ex. In stomach "seeds."
25. *PITYLUS GROSSUS* (Linn.).
Three ex., agreeing with specimens from Cayenne. Stomachs contained "seeds and vegetable matter."
26. *HEDYMELES LUDOVICIANUS*.
One ex.
27. *GUIRACA* — ?
One ex., a female of a species allied to *G. cyanea*.
28. *SPERMOPHILA OPHTHALMICA*, Sclater, *antea*, p. 276.
Three ex. "Killed on the Cacao plant (*Theobroma*): stomach contained minute seeds."
29. *SPERMOPHILA GUTTURALIS* (Licht.).
One ex.
30. *EMBERNAGRA CHRYSOMA*, Sclater, *antea*, p. 275.
"Found in small parties amongst the fallen underwood in a Cacao plantation:" stomachs of two contained "insects."
31. *ICTERUS MESOMELAS*, Wagler.
"Very shy; often heard, but seldom seen."
32. *CASSICULUS PREVOSTI* (Less.).
Two ex.
33. *XIPHORHYNCHUS THORACICUS*, Sclater, *antea*, p. 277.
34. *PICOLAPTES SOULEYETII*, Lafr.
35. *DENDROCOPS ATRIROSTRIS*, Lafr. et D'Orb.
36. *SITTASOMUS ERITHACUS* (Licht.) ?
"Appears entirely red during its short but rapid flights."
37. *XENOPS GENIBARBIS*, Temm.
Three examples, hardly distinguishable from ordinary Eastern specimens.

38. *SYNALLAXIS PUDICA*, Sclater.

One ex., agreeing with those from Babahoyo.

39. *THAMNOPHILUS TRANSANDEANUS*, Sclater.

One ex. Stomach contained "insects."

40. *THAMNOPHILUS NÆVIUS* (Gm.).

Several ex., agreeing sufficiently with specimens from Cayenne.

41. *MYRMOTHERULA* — ?

A female of a species allied to *M. surinamensis*.

42. *MYRMOTHERULA* — ?

A single example of a species allied to *M. gularis*. "♂. Irides orange; upper mandible black, lower blue; legs and feet blue."

43. *FORMICIVORA CONSOBRINA*, Sclater, *antea*, p. 279.

Several examples, not in good preservation.

44. *PYRIGLENA PICEA*, Cab. ?

One ex., agreeing with that mentioned in the previous collection (p. 279).

45. *CERCOMACRA TYRANNINA*, Sclater, P. Z. S. 1855, p. 90.

A single male example, agreeing with Bogotan skins.

46. *CERCOMACRA MACULOSA*, Sclater, *antea*, p. 279.

Examples of both sexes.

47. *HYPOCNEMIS NÆVIoidES*, Lafr.

Found "in the underwood."

48. *MYRMECIZA EXSUL*, Sclater, P. Z. S. 1858, p. 540.

Two examples of this bird differ from that described only in being rather more ashy-black on the head and breast. "Irides hazel; bill black; legs and feet blue; naked space round the eyes ultramarine-blue."

49. *FORMICARIUS ANALIS* (Lafr. et D'Orb.).

Two examples, differing from Trinidad skins only in having the head of a darker and more blackish shade. "Irides hazel; bare space round the eyes flesh-colour; bill black; legs and feet brownish; killed on the ground near a cane-patch."

50. *COPURUS LEUCONOTUS*, Lafr. — *C. pæcilonotus*, Cab. in Schomb. Guian. iii. p. 703.

Several ex. "Irides hazel: sitting on a lofty stump in a Cacao plantation."

51. MEGARHYNCHUS CHRYSOGASTER, Sclater, *antea*, p. 281.
One ex.
52. MYIODYNASTES NOBILIS, Sclater, P. Z. S. 1859, p. 42.
"Stomach contained insects; irides hazel; bill black; base of lower mandible flesh-colour; legs and feet blue."
53. MYIARCHUS NIGRICEPS, Sclater, *antea*, p. 68.
54. CONTOPUS ——— ?
One ex. of a small species allied in structure to *C. virens*.
55. EMPIDONAX ——— ?
Two ex. of a distinct species of this group, allied to *E. acadicus*.
56. EMPIDONAX ——— ?
One ex.
57. PYROCEPHALUS NANUS, Gould.
"Not very common."
58. CYCLORHYNCHUS SUBBRUNNEUS, Sclater, *antea*, p. 282.
One ex.
59. MYIOBIUS ERYTHRURUS, Cab. in Wieg. Archiv. 1847, t. 5.
f. 1.
Three ex., apparently to this species.
60. MYIOBIUS BARBATUS (Gm.).
Two ex., agreeing with those from Babahoyo.
61. PLATYRHYNCHUS ALBIGULARIS, Sclater, P. Z. S. 1860, p. 68.
One ex. "Found in the dark underwood."
62. TODIROSTRUM SQUAMICRISTATUM, Lafr.
Two ex.
63. MYIOZETETES COLUMBIANUS, Cab. & Hein. Mus. Hein. ii.
p. 62.
One ex., apparently agreeing with this species, if distinct from *M. cayennensis*.
64. ELAINEA ——— ?
One ex. of a species allied to *E. placens* of Mexico and Central America.
65. TITYRA PERSONATA, Jard. & Selb. Ill. Orn. i. pl. 24.
Two ex., agreeing with Mexican specimens. I have also received the same bird from S. Martha and Bogota.

66. *PACHYRHAMPHUS SPODIURUS*, Sclater, *antea*, p. 279.

One ex., agreeing with Babahoyo specimens.

67. *CHIROMACHÆRIS MANACUS* (Linn.).

Three ex.

NYCTIDROMUS — ?

Adult and young. "The note of this bird resembles 'Who are you?' said very distinctly and quickly. On moonlight nights it may be heard in all quarters."

69. *PHAËTHORNIS MOORII*, Lawrence.

One ex. ♂. "Feeding about some vines at the height of 5 feet from the ground in the Cacao plantations."

70. *GLAUCIS RUCKERI*.

Three ex. Spec. no. 2577, "irides hazel; upper mandible black, lower yellow with a black tip; legs and feet flesh-colour. Found on the edge of the virgin forest: always solitary, generally in dark and lonely places, and very restless."

71. *HELIOTHRIX PURPUREICEPS*, Gould, Mon. Troch. pt. 17. pl. 9.

Three ex. "Seen flying low at the edges of the forest."

72. *AMAZILIA RIEFFERI* (Boiss.).

Two ex. "When I arrived in October, this species was by no means uncommon, feeding morning and evening round the eaves of the house. In November it was very scarce, and in December not to be seen."

73. *JULIAMYIA TYPICA*, Bp.

Three ex. Spec. no. 2555, "taken catching flies among the vines in the Cacao plantations. In October very common everywhere; in December rare."

74. *JULIAMYIA AMABILIS*.

Two ex. Stomach contained "insects."

75. *CERYLE AMERICANA* (Gm.).

Two ex. Stomachs contained "remains of fishes."

76. *MOMOTUS MICROSTEPHANUS*, Sclater?

Two ex. "A rare bird here."

77. *BUCCO SUBTECTUS*, sp. nov.

Similis Bucconi tecto ex Cayenna, sed colore nigro intensiore,

tetricibus alarum superioribus immaculatis ; et vitta pectorali dimidio angustiore.

Long. tota 5·8, alæ 2·8, caudæ 2·1.

Hab. In rep. Equator., regione littorali.

Mus. P. L. S.

One ex. "Irides hazel ; bill, legs, and feet black."

78. *MALACOPTILA PANAMENSIS*, Lafr. Rev. Zool. 1847, p. 79 ;
Sclater, Mon. Bucc. p. 18.

Several ex. of both sexes. "Irides red ; legs and feet bluish flesh-colour. Found in the dry underwood where no weeds grow, flying from branch to branch."

The females are paler, not rufous above, and hardly so on the tail ; but of a greenish tinge, and with the breast below much paler.

II. SCANSORES.

79. *PIAYA NIGRICRISSA*, Sclater, *antea*, p. 285.

"Found in the underwood."

80. *PIAYA RUTILA* (Vieill.) : Bp. Consp. p. 110.

One example, not differing materially from Eastern specimens. "Three Guava-trees in front of the house were attacked by a number of caterpillars, which in twenty-four hours stripped off their leaves. These insects attracted two specimens of this bird. They were exceedingly active and elegant when hopping or running through the branches ; but their flight was heavy and laboured, their short heavy wings being in strong contrast with their long light tail."

81. *CROTOPHAGA SULCIROSTRIS*, Sw.

One ex.

82. *EUBUCCO BOURCIERI* (Lafr.).

"Stomach contained vegetable matter."

83. *CENTURUS PUCHERANII*, Malh.

One ex. "Stomach contained vegetable matter."

84. *CHLORONERPES CECILII*, Malh. ?

One ex. in bad condition, perhaps of this species.

85. *CHLORONERPES CALLONOTUS* (Waterh.).

Two ex. "From small trees near the house."

86. *DRYOCOPUS FUSCIPENNIS*, Sclater, *antea*, p. 286.

Common.

87. HERPETOTHERES CACHINNANS (Linn.).

One ex. ♀ by diss. "Crop and stomach full of snakes."

88. ACCIPITER PILEATUS (Max.).

One ex. ♂. "Stomach contained feathers."

89. COLUMBA SPECIOSA (Gm.).

"Stomach contained minute seeds and vegetable matter."

90. PERISTERA — ?

A young bird in bad state, of a species allied to *P. cinerea*.

91. ODONTOPHORUS ERYTHROPS, Gould.

One ex. "Stomach contained seeds and vegetable matter. This bird is found in covies in the underwood, and has a cry, which it utters just before daylight and after sunset."

92. TINAMUS — ?

"Killed when in company with some domestic chickens in the bush near the house." A small species, allied to *T. parvirostris*: the specimen in bad condition.

93. HIATICULA AZARÆ.

94. TRINGOIDES MACULARIUS (Linn.), juv.

"Not uncommon on the river's bank."

5. CHARACTERS OF ELEVEN NEW SPECIES OF BIRDS DISCOVERED BY OSBERT SALVIN IN GUATEMALA. BY PHILIP LUTLEY SCLATER, M.A., SECRETARY TO THE SOCIETY; AND OSBERT SALVIN, M.A., F.Z.S.

1. POLIOPTILA ALBILORIS.

Cærulescenti-cinerea, pileo nigro, loris albis: remigibus alarum nigricantibus; primariis cinereo, secundariis albo latiore marginatis: caudæ rectricibus tribus utrinque lateralibus albo, gradatim decrescente, terminatis, ceteris nigris, quarta utrinque extima albo terminata: subtus alba, cinerascente lavata: rostro nigro: pedibus obscure plumbeis.

Long. tota 4·3, alæ 1·9, caudæ 2·0.

Hab. In rep. Guatimalensi in valle fl. Motagua.

Obs. Affinis *P. leucogastræ* ex Brasilia, sed loris albis facile notabilis.

2. DENDRÆCA CHRYSOPARIA.

Supra nigra, dorsi plumis ad margines aurescentibus: superciliis et capite toto laterali læte aureo-flavis, vitta angusta per oculos transeunte nigra: alis nigricantibus, albo bifasciatis, secun-

dariis quoque albido limbatis: cauda nigra, rectricum trium utrinque lateralium pogonio interno partim albo: subtus alba gutture toto et maculis laterum utrinque nigris: rostro pedibusque obscure corneis.

Long. tota 4·5, alæ 2·5, caudæ 2·4.

Hab. In reip. Guatemalensis provincia Veræ Pacis, inter montes.

Obs. Inter *D. virentem* et *D. townsendi* media, ab utraque dorso nigro, abdomine pure albo et capite laterali fere omnino aureo distinguenda.

3. HYLOPHILUS CINEREICEPS.

Flavicanti-olivaceus: pileo toto et nucha cinereis: ciliis oculorum et corpore medio subtus albis: lateribus et crisso pallide flavicanti-viridibus, rostro corneo, mandibula inferiore albicante: pedibus plumbeis.

Long. tota 4·1, alæ 2·1, caudæ 1·8.

Hab. In prov. Veræ Pacis regione calida.

Obs. Affinis *H. thoracico*, Temminckii, ex Cayenna, sed fronte pileo concolore et pectore albo distinguendus.

4. GLYPHORHYNCHUS PECTORALIS.

Brunneus, secundariis extus, uropygio et cauda rufis: superciliis, lateribus capititis et gula pallide ochraceo-rufis, plumarum marginibus angustis brunneis: subtus dilutior, pectore maculis elongatis, plumarum scapas cingentibus, notato: remigibus nigris, macula magna quadrata in pogonio interiore pallide ochracea occupatis: rostro nigricanti-plumbeo, pedibus nigris.

Long. tota 5·5, alæ 2·8, caudæ 2·7.

Hab. In prov. Veræ Pacis regione calida.

Obs. Assimilis *G. cuneato* ex Brasilia, sed statura majore et maculis pectoralibus dignoscendus.

5. THAMNISTES ANABATINUS.

Thamnistes genus novum ex familia *Formicariidarum*, *Thamno-philo* generi affinis: characteres generales *Thamnophili* habet, sed rostro crassiore, basi latiore, et ptilosi anabatino differt.

Typus. *T. anabatinus*.

♂. *Vix olivascenti-brunneus subtus dilutior: cauda ferrugineo-rubra unicolore: alis extus rufescentibus: macula magna interscapulari plumarum basin occupante læte aurantiaco-rubra margine subapicali nigra: superciliari striga indistincta et corpore subtus pallide ochraceis, unicoloribus: rostri mandibula superiore nigricante, inferiore pallide cornea, pedibus nigris.*

♀. *Mari similis, sed macula interscapulii nulla.*

Long. tota 5·6, alæ 2·7, caudæ 2·3, tarsi 7·5.

Hab. In prov. Veræ Pacis regione calida.

6. PLATYRHYNCHUS CANCROMINUS.

Platyrrhynchus cancroma, Sclater, P. Z. S. 1856, p. 295, et Ibis, 1859, p. 445.

Similis P. caneromæ ex Brasilia, et ab illo vix satis diversus, sed gula pure alba et cauda brevior distiguendus.

Hab. In prov. Veræ Pacis regione calida, et in Mexico Merid. statu Veræ Crucis.

7. TYRANNULUS SEMIFLAVUS.

Olivaceus: pileo cinerascete: fronte et superciliis albis: alis caudaque fuscis olivaceo limbatis: subtus pure flavus: rostro et pedibus nigris.

Long. tota 3·2, alæ 1·8, caudæ 1·2.

Hab. In prov. Veræ Pacis regione calida.

Obs. Affinis *Tyrannulo elato* et *T. nigricapillo*, et plerumque eadem forma, sed corpore subtus flavo, maculis alaribus nullis et cauda paulo brevior distiguendus.

8. HETEROPELMA VERÆ-PACIS.

Olivaceum unicolor, supra infraque ad medium pectus rufo aut ochraceo lavatum: alis caudaque fusciscentibus, extus rufescentibus: rostro corneo pedibus plumbescentibus.

Long. tota 6·3, alæ 3·5, caudæ 2·5.

Hab. In prov. Veræ Pacis regione calida.

Obs. Affine *H. virescenti* ex Brasilia et statura eadem; colore *H. turdino* magis appropinquans; attamen ab utroque sane diversum.

9. LIPAUGUS HOLERYTHRUS.

Rufescenti-brunneus unicolor, subtus clarior: remigum parte interna et primariorum apicibus fusciscentibus: rostri pallide cornei basi albicante: pedibus obscure corylinis.

Long. tota 8·3, alæ 4·2, caudæ 3·8.

Hab. In prov. Veræ Pacis regione calida.

Obs. Affinis *L. unirufo* ex eadem patria, et pictura eadem, sed crassitie minore facile dignoscendus.

10. PIONUS HÆMATOTIS.

Viridis: pileo rubiginoso flavo: hujus plumarum marginibus angustis et regione auriculari coccineis: gutture obscure plumbeo: subtus viridis, pectore aureo lavato: lateribus sub alis late coccineis: remigibus nigris, primariis supra fulvo anguste limbatis; secundariis supra et alis omnino subtus cærulescentibus: rectricum basibus intus coccineis, caudæ apice cærulescente: rostro flavescenti-albo, pedibus rubellis.

Long. tota 8·5, alæ 5·8, caudæ 3·6.

Hab. In prov. Veræ Pacis regione calida.

Obs. Species lateribus coccineis ab aliis hujusce generis speciebus primo visu diversa.

11. CORETHRURA RUBRA.

Læte rufa, subtus medialiter dilutior: gula albicantiore: pileo toto et lateribus capitis saturate cinereis: remigibus et rectri-